

REMARKS

Claims 1-32 are currently pending. Claims 6 and 26 have been amended to correct certain formal deficiencies. No new matter was added. As per MPEP §1453, the enclosed claim listing shows changes relative to the US 6,480,568 patent issued Nov. 12, 2002, of which the current application is a reissue. Applicant notes that the claim listing found in Applicant's response dated Dec. 11, 2007 did not follow the proper format for amendment of a reissue application. Applicant requests that the currently presented properly formatted claim listing replace the previously filed improperly formatted listing.

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Reissue Declaration

The Office Action states that the reissue oath/declaration filed with this application is defective "because it fails to identify at least one error which is relied upon to support the reissue application." A supplemental declaration is enclosed with this communication which obviates this issue. The supplemental declaration states:

"[Applicant believes] the '568 patent, which matured from application Serial No. 09/884,561, filed on June 19, 2001, to be wholly or partly inoperative or invalid by reason of my claiming less than [Applicant] had a right to claim in the patent. The following constitutes a statement of at least one error being relied upon as the basis for reissue under 37 CFR 1.175 (a)(1): Each of claims 1-25 appearing in the original 6,480,568 patent include, explicitly or through dependency, the limitation that the claimed device emit "therapeutic radiation." However, Applicant's specification provides support (e.g. at col. 11, lines 30-48) for a device having a structure which produces radiation (e.g. x-rays) generically. Accordingly, claims 1-25 are too narrow."

Accordingly, the supplemental declaration now satisfies the requirements of 37 CFR 1.175 (a)(1) and 35 USC 251 by properly stating at least one error in the original claims (i.e. that claims 1-25 are too narrow because they include a limitation that the claimed device emit “therapeutic radiation”). In light of the above, Applicant requests reconsideration and withdrawal of the rejection under 35 USC 251 of the reissue declaration.

Applicant notes that the current application was accorded Rule 1.47(b) status by Senior Petitions Attorney Christina Tartera Donnell in a communication dated June 14, 2005. The supplemental declaration is properly signed by Mark Lappin for sole inventor Mark Dinsmore under Rule 1.47(b).

Applicant thanks Supervisor Ed Glick for his helpful guidance in a telephone discussion on February 27, 2008 regarding the proper course of action to deal with the above issue with the reissue declaration.

Claim Objections

Claims 6, 26, and 30 have been objected to on formal grounds due to antecedent basis problems. Claims 6 and 26 have been amended to obviate these issues. Claim 6 has been amended to depend from claim 5. Claim 26 has been amended to replace the phrase “electron source” at line 13 of the claim with the phrase “thermionic cathode.” Claim 26 has also been amended to insert the phrase “along a beam path” after the word “cathode” in line 14 of the claim. Proper antecedent basis is now provided for all elements of claims 6, 26 and 30. Accordingly, Applicants requests reconsideration and withdrawal of the objection to claims 6, 26, and 30.

35 USC §102 Rejections

Applicant renews the arguments presented in the previous response dated Dec. 11, 2007. Claims 1-30 have been rejected under 35 USC § 102(b) as being anticipated by Oettinger et al. U.S. Patent No, 5,428,658 (henceforth “Oettinger”). Applicant traverses.

To anticipate a claim, a reference must teach each and every element of the claim.

(MPEP § 2131). Independent claim 1 recites:

an electron source, responsive to optical radiation...for emitting electrons, the electron source including a thermionic cathode having an electron emissive surface; an optical delivery structure ...adapted for directing a beam of optical radiation transmitted therethrough to impinge upon a surface of said thermionic cathode, and wherein said beam of transmitted optical radiation has a power level sufficient to heat at least a portion of said surface to an electron emitting temperature so as to cause thermionic emission of electrons from said surface.

Independent claims 26, 31 and 32 include substantially similar limitations.

Oettinger fails to disclose directing a beam of optical radiation to impinge on the surface of a thermionic cathode with sufficient power level to heat at least a portion of the surface to a sufficiently high temperature to cause electron emission. To the contrary, Oettinger teaches that use of either a **current-driven** thermionic cathode or a **photocathode**. (Oettinger, column 9 lines 5-8). Oettinger teaches that in a current-driven thermionic cathode, an element is **resistively heated with a current** to provide a sufficiently high temperature to provide electron emission. (Oettinger, column 12, lines 7-18.) Oettinger further teaches that a photocathode is a **non-thermionic** cathode suitable for illumination with a laser or LED such that electrons are produced by “photoemission” (Oettinger, column 12 lines 19-23.) As noted in Applicant’s specification, such photocathodes operate to produce electrons by way of the quantum photoelectric effect and not through thermionic emission caused by heating. (Applicant’s specification, column 2, lines 29-53). To the contrary, typical photocathodes operate at temperatures several thousand degrees centigrade less than those required for thermionic cathodes. (Id.) Applicant can find no disclosure in Oettinger of the use of optical radiation to heat a thermionic cathode to sufficient temperature for thermionic electron emission, as required by Applicant’s claims.

In light of the above applicants submit that the proposed combination fails to disclose, each and every element of independent claims 1, 26, 31, and 32. Claims 2-24 and 27-30 depend

directly or indirectly from independent claims 1 or 26, and therefore patentably distinguish Oettinger for at least the same reasons. Accordingly, Applicant requests reconsideration and withdrawal of the rejection of claims 1-24, and 26-32 under 35 USC §102(b).

Allowable Subject Matter

Applicant thankfully acknowledges the indication that claim 25 would be allowable if not rejected based on the alleged defect in the reissue application discussed above. As there is no longer any proper basis for this rejection, Applicant asks that claim 25 be allowed.

Conclusion

Applicant believes that there is no longer any proper basis for the rejections under 35 USC §102 or as being based on a defective reissue declaration. Applicant therefore submits that present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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By 

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